CLAIMS

1. An insertion instrument (1) for a three-piece intervertebral implant (2) that includes an upper part (6) that can be placed against a vertebra (3), a lower part (9) that can be placed against the adjacent vertebra (4), and a pivot element (14) that can be inserted between these two parts, the instrument having two arms (21, 27), disposed side by side and supported pivotably relative to one another at one end, which on their free end each have one retention device (20) for the upper part (6) and lower part (9), respectively, of the intervertebral implant (2), characterized in that a longitudinal guide (38, 39) for the pivot element (14) is disposed in one of the arms (21).

2. The instrument of claim 1, characterized in that the longitudinal guide is formed by protrusions (15) engaging longitudinal grooves (38, 39).

3. The instrument of claim 2, characterized in that grooves (38, 39) opposite one another, which are engaged by the pivot element (14) with lateral protrusions (15), are disposed in one of the arms (21), in a receiving chamber (28) for the pivot element (14), the receiving chamber extending in the longitudinal direction of the arm (21).

4. The instrument of one of the foregoing claims, characterized in that the arm (21) having the longitudinal guide (38, 39) has two rodlike legs (22, 23), disposed parallel to and spaced apart from one another, and which between them form a receiving chamber (28) for the pivot element (14) and guide the pivot element between them longitudinally of the receiving chamber (28).

5. The instrument of one of the foregoing claims, characterized in that the longitudinal guide (38, 39), on its end adjacent to the pivot support of the arms (21, 27), forms an insertion region, at which the pivot element (14) can be inserted into the longitudinal guide (38, 39).

6. The instrument of one of the foregoing claims, characterized in that the longitudinal guide (38, 39) of the one arm (21) changes over into a longitudinal guide (18) of the part (9) of the intervertebral implant (2) that is retained on that arm (21).

7. The instrument of one of the foregoing claims, characterized in that it includes a push member (40), which is insertable into the longitudinal guide (38, 39) and is joined to a rodlike thrust element (41).

8. The instrument of one of the foregoing claims, characterized in that the two arms (21, 27) are disposed side by side at their free ends, in such a way that the retention devices (20) move at least partway into one another in the direction of the pivoting motion of the arms (21, 27).

9. The instrument of one of the foregoing claims, characterized in that the two arms (21, 27), in the region of their pivot support, have a spacing from one another such that the arms (21, 27), in their insertion position in which the free ends of the arms (21, 27) are at their closest proximity to one another, have a greater spacing from one another on the supported end than on the free end.

10. The instrument of claim 9, characterized in that a spreader element (43) is provided, which is braced on both arms (21, 27) and can be fed or advanced along the arms (21, 27) in the direction of the free end of the arms (21, 27),

and in the process pivots the arms (21, 27) apart.

11. The instrument of claim 10, characterized in that at least one of the two arms (21, 27) has a longitudinal guide (42, 28; 27) for the spreader element (43).

12. The instrument of claim 10 or 11, characterized in that a feed rod (46) is disposed on the spreader element (43).

13. The instrument of claim 12, characterized in that the feed rod (46) is embodied as a rack, which meshes with a driving gear wheel (47) in the region of the pivot support of the arms (21, 27).

14. The instrument of one of the foregoing claims, characterized in that the retention devices (20) are pins, which engage bores (19) in the upper part (6) and lower part (9) of the intervertebral implant (2).

15. The instrument of one of the foregoing claims, characterized in that the retention devices (20) on at least one of the arms (27) are pivotable about a pivot axis that is located in the region of the free end of the arm (27) and extends parallel to the pivot axis of the arm (27), and that the retention devices, after being pivoted about this pivot axis, can be locked in different angular positions.

16. The instrument of claim 15, characterized in that for locking the angular position, a fixation pin (35) is provided, which can be inserted into bores (33, 34) oriented at different angular positions to one another.

17. The instrument of one of the foregoing claims, characterized in that at least one retention device (20) has

a releasable locking means (25, 26).

18. The instrument of claim 17, characterized in that the locking is effected by rotating a locking bar (25) about an axis of rotation, which extends substantially parallel to the longitudinal axis of the arm (21) on which the retention device (20) is disposed.

19. The instrument of claim 18, characterized in that the arm (21) carrying the retention device (20), or a part (22, 23) of this arm, is rotatable and carries a locking bar (25), which in one position locks the part (9) of the intervertebral implant (2) retained on the retention device (20) to the implant and in another position releases it.

20. The instrument of claim 19, characterized in that the retention device is a pin engaging a receiving bore (19) on the retained part (9) of the intervertebral implant (2), and the locking bar (25) is a protrusion protruding laterally from this pin.

21. The instrument of one of the foregoing claims, characterized in that the arm (21) having the longitudinal guide (38, 39) has two parallel legs (22, 23), which between them form a receiving chamber (28) for the pivot element (14), and that the other arm (27) extends centrally between these legs (22, 23), so that it can move with its free end between the legs (22, 23).

22. The instrument of claim 21, characterized in that a spreader element (43), disposed between the arms (21, 27) and displaceable along them, rests on the surface (42) of the two legs (22, 23) and, with its protrusion (44), it reaches between the two legs (22, 23) to engage the receiving chamber (28).

23. The instrument of claim 22, characterized in that the spreader element (43), on its top, has an indentation (45) into which the arm (27) moves.

24. The instrument of one of claims 21-23, characterized in that the legs (22, 23) of the one arm (21) are rectangular in cross section.

25. The instrument of one of claims 21-24, characterized in that the other arm (27) is circular in cross section.

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